

ICT Regulation and Policy at a Crossroads: A Case Study of the Licensing Process in Kenya

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Abstract

Regulatory reforms in the telecommunications sector in Africa and the rest of the world have been necessitated by the convergence of information and communication technology industries. Given the relative newness of the sector in Africa, information and communication technology implementation problems persist. Research in the sector has tended to attribute implementation problems to technological issues. While not contesting this, this paper contends that information and communication technology implementation in Africa warrants a re-evaluation from the perspective of policy making processes. Drawing on two case studies, this paper critically examines the licensing policy option as documented in the Kenya Communications Act and as implemented by the regulator in Kenya. This analysis is situated within public policy frameworks that highlight the function of domestic institutions and patterns of politics as highly critical filters in policy making, thus influencing actor behaviour and impacting on implementation outcomes in the policy making processes. The findings are that policy making and information and communication technology implementation in Kenya are influenced by institutional/policy arrangements and the contextual forces of ideological, political, social and economic interests. This has significant implications for Kenya, particularly as the study reinforces the call for a critical examination of the policy actors and policy choices that govern information and communication technology regulation and implementation. The study findings also have implications for other African countries, in that the study questions the viability of such policy choices for creating information/knowledge societies in Africa. The analysis in this paper is based on document research and fieldwork, and forms part of a wider study on policy options and implementation processes as enacted through the regulation of the telecommunications sector in Kenya.

Introduction

This paper argues that information and communication technology (ICT) implementation problems could be better understood by analysing the policy process within which ICT is implemented. To this end, the first section of this paper undertakes an overview of the ICT sector as documented in the Kenya Communications Act (KCA). Given that it is impossible to document the entire legal context of the KCA in the space of this paper, the purpose of the first section is to establish the role of the licensing tool in governing the ICT sector. Drawing on the KCA, the paper provides a critical analysis of the licensing policy process and explores alternative policy options available within regulatory practice. The analysis draws on public policy discourses that have attempted to explain problems in policy making from various perspectives: see, for example, stages of the policy cycle – Laswell (1956) and Howlett & Ramesh (1995); public choice framework – Downs (1967) and Dunleavy (1991); and welfare economics – Jenkins-Smith (1998). The paper concludes with a call for ICT policy studies to be undertaken within a public policy framework that seeks to explain “how, why and to what effect governments pursue particular courses of action and in-action” (Heidenheimer *et al*, 1990: 3).

The Kenya Communications Act (KCA)

The Kenya Posts and Telecommunication Corporation (KP&TC) Act was enacted in 1977. It filled the vacuum left by the East African Posts and Telecommunication Act, which was replaced upon the collapse of the East African Community. The KP&TC was historically vertically integrated into postal services, telecoms services and regulatory functions. As regulator, provider of telecom services and owner of the telecommunications infrastructure, the KP&TC locked out competitors. The resulting inequity in the sector manifested in exorbitant fees charged to competitors and consumers, and limited regulatory oversight from the Government.

This changed with the enactment of the Kenya Communications Bill, which became law on 15 February 1999. The KCA is thus the governing document for ICT implementation in Kenya.¹ The Act brought about five main structural changes to the ICT sector, in that it:

- repealed the KP&TC Act of 1997;
- separated postal and telecommunications services – establishing the Postal Corporation of Kenya as a statutory postal services monopoly, and Telkom Kenya as the network owner and service provider with an interim monopoly for five years;
- created a separate regulatory agency, the Communications Commission of Kenya (CCK), to regulate both postal and telecom services. Part of its current mandate includes: issuing of licences, regulating prices and establishing interconnection principles;
- created a policy team, the National Communications Secretariat (NCS), charged with the responsibility of advising government on policy issues; and
- spelled out the road map towards the liberalisation process for the sector.

In addition, the KCA spells out the principles of fair competition, licensing procedures, interconnection, frequency management, type approval, numbering, postal and courier services, tariff regulation and procedures of enforcement.

Policy objectives

The overall government objective for the sector was to optimise its contribution to the development of the Kenyan economy as a whole by ensuring the availability of “efficient, reliable and affordable communication services throughout the country” (Republic of Kenya, ROK, 2001: 2676).

This reasoning was based on international influence, as well as convergence, and economic and social changes, in the sector. Such a view is similar to the views of other developing countries with regard to ICT reforms (Cowhey & Klimenko, 2000; Melody, 1999).

However, two competing principles defined the sector’s operation: firstly, achieving Universal Service Obligation (USO) under the United Nations Millennium goals; and secondly, meeting the financial demands that this declaration entailed. For example, in the area of telephone lines, the Government intended to:

¹ The interchange from “Telecommunications” to ICT reflects the convergence of the sector. This paper therefore uses the terms interchangeably. A discussion on this and its relation to the KCA is presented later in this paper.

- improve penetration in the rural areas from 0.16 lines (in 2001) to five lines per 100 people by the year 2015; and
- improve service penetration in the urban areas from four lines (in 2001) to 20 lines per 100 people by the year 2015 (ROK, 2001).

To achieve the above objectives, a phased approach through a process of liberalisation and privatisation was chosen. To this end, two market segments were created:

- market segments subject to exclusivity, which was given to Telkom Kenya for a period of five years (to 30 June 2004); and
- liberalised market segments subject to competition fostered by the licensing of new players.²

The licensing policy

The licensing policy option is based on a bidding process with three stages: pre-qualification, technical and financial evaluation procedure. While the details vary slightly with each applicant, the basic components are the same.

The main components of the three stages are outlined below:

- *Pre-qualification stage*: This includes evidence of network and financial history in the specified sector. For example, a mobile licence application requires evidence of more than 250 000 network subscribers and a turnover of at least US\$ 100 million.
- *Technical stage*: This includes an understanding of pricing and consumer needs, the feasibility of the offer (e.g. a detailed description of the proposed architecture of the network) and an analysis of the applicant's credibility.
- *Financial stage*: If deemed successful at the technical stage, no "point distinction" is made among the applicants and the process then moves to the financial stage where the process converts to (what could be termed) an "auction" format, in that the firm that submits the highest amount for the licence is automatically made the winner of the process.

Thus, based on the above procedure, the CCK is obliged to grant a licence to an applicant whose bid has scored at least 75% based on a scoring matrix at the technical procedure and has offered the highest financial bid compared to the other technically qualified applicants. The rules governing the operation of the service to be provided by the applicant are then stipulated on the licensing document as provided by the CCK.³

While the process for licensing seems clear on paper, its implementation has created controversy from the perspective of both applicants and regulator. As a result of such controversy, outcomes have not fulfilled intended objectives as set out by the KCA and the regulator. As is evident from the above overview of the KCA, the licensing policy is an integral part of the KCA and acts as a major governance mechanism for the regulator in the sector. The following case studies draw on the KCA and provide the grounding for the paper's argument.

² Examples of licences include: Value Added Services, Very Small Aperture Terminal Services, Internet backbone and mobile cellular services. See KCA for specifications of each licence category.

³ There are 13 main rules governing the process including, for example: licence duration, annual rollout obligations and USOs.

Case study: Licensing of Regional Telecommunications Operators

In an attempt to fulfil USO, the CCK in 2000 initiated the process of licensing Regional Telecommunications Operators (RTOs). This followed a project trial aimed at evaluating the feasibility of introducing rural telecom operators. The decision to licence RTOs was justified by the argument that Telkom Kenya at the time held a monopoly on the provision of regional telecommunications but needed support if the Government was to meet USO as well as fulfil the KCA mandates. The RTOs were expected to provide services to seven of the country's eight provinces.⁴ The licences would be granted for 15 years and would be renewable for a further ten years upon their expiration, as stipulated in the KCA. The licences would allow for the provision of local exchange basic voice services, inter-exchange basic voice services, and regional long-distance basic voice carrier services. The licensing process was used to determine issuance of the licence. Eight companies each submitted a bid and three winners emerged.

The three winning applicants committed to investing up to US\$ 350 million to provide 299 000 lines or build a fixed-line/wireless network matching the size of Kenya's incumbent, Telkom's, network in similar regions. In addition to the infrastructure investment, the winning bidders agreed to pay the Government an upfront licence fee of US\$ 37 million. However, in the ensuing four years to date (December 2004), operations have not begun. So far, only one of the three bidders has managed, after protracted negotiations, to secure a licence to operate in one of the eight regions tendered for and, even then, under slightly modified entry terms (payment of the licence fee in instalments) to accommodate the bidder's financial difficulties. While the CCK has not come out openly on the issue, it is thought that the application for the licence was based on speculative bidding on the part of the bidders – bidding that was not necessarily supported by a commercial evaluation of the market.

Case study: The third GSM

In January 2003, the CCK approved the licensing of the third GSM (Global Standard for Mobile)⁵ licence to compete with the existing two GSM networks, Safaricom and Celtel.⁶ Four main reasons were cited as justification for a third operator:

- The board argued that a large customer base would overstretch the network of the two companies (which by the end of 2002 had a combined subscriber base of more than 1.3 million)⁷ and therefore compromise USO targets.
- A third GSM was expected to provide a balance in terms of the ongoing expansion of services in areas with no coverage.
- With the resulting competition, the new entrant would lower access charges and thus create a larger customer base.
- The third operator would raise additional revenue for the Government through licence fees and taxes and consequently create more opportunities for employment (Respondent #13).⁸

⁴ The capital city, Nairobi, was not included on the list of areas to be serviced by the RTOs; Telkom Kenya was expected to have continued exclusivity status in this region.

⁵ Alternatively, Global System for Mobile and, historically, Groupe Speciale Mobile.

⁶ Formerly known as Kencell, the company changed its name in November 2004. For more details see www.ke.celtel.com/en/index.html

⁷ CCK, 2002.

⁸ This is based on interviews while on fieldwork in Kenya (August 2003-February 2004). Due to confidentiality agreements, actual names have been replaced with respondent numbers.

Such views were also largely supported by local and international advocacy groups, who all saw the introduction of a third operator in the market as a means of reducing charges on services provided to the public as well as increasing the viability of achieving USO. A key player in the process was International Telecommunication Union (ITU) who, in the pre-bidders' conference, gave a presentation supporting the introduction of the third GSM and noting that the unmet market demand for telephony in Kenya was between 4.7 and 9.4 million,⁹ which would thus enhance both qualitative and quantitative demand for economic growth (ITU, 2002).

All pre-qualified firms indicated that they would enter partnerships with local firms (in keeping with Government policy through the KCA, which requires that a local firm be a part shareholder in the application), but they were not required at the pre-qualification stage to reveal the names of their local firm partners. On 19 September 2003, Econet Wireless Group of South Africa (with the Kenya National Federation of Cooperatives and Corporate Africa as local partners) was announced winner, after bidding for the licence at a cost of US\$ 27 million. The Econet consortium beat Mobile Systems International (MSI) Cellular Investment Holding BV of the Netherlands (with Industrial Promotion Services Kenya as local partner), which had also qualified at the technical evaluation stage and had made an offer of US\$ 11 million for the licence.

Two issues emerged in the months following the announcement:

- Econet Consortium suffered an acrimonious parting from its key local partner, the Kenya National Federation of Cooperatives, which was experiencing problems funding the deal (to begin operations, Econet needed to pay the licensing fees of Ksh 2.16 billion, i.e. US\$ 27 million, to the Government).
- Kenya Telecommunications Investments Group (KTIG),¹⁰ one of the consortia that had participated in the second leg of the tendering process, moved to court, suing Econet for improper conduct and citing lack of transparency and fairness in the tendering process on the part of the CCK.

Thus, as in the case of the RTOs, the third GSM has not begun operations and continues to face both legal and monetary problems.

Analysis

From the above case studies, three main advantages could be argued for using licensing as a policy tool:

- In cases where licences are treated as a scarce resource or where there are limitations on licences to be granted, the process offers equal opportunities to all those interested in securing a licence. This is the case with most telecommunication and broadcasting licences, where frequencies and spectrum management issues are dependant not only on local availability but on regional and international allocations.
- The licensing process presents a significant opportunity for the Government to earn revenue upfront from initial licence fees paid in by the winning bidder. Sums of up to US\$ 55 million (the highest paid in so far for a licence) represent the prospect of a large portion of revenue for Government.
- The licensing process creates an orderly manner in which governance can take place.

⁹ Current statistics from the Kenya Bureau of Statistics estimate the population to have reached 30 million.

¹⁰ A partnership between Detecom International GmbH of Germany and Kenya, Swedtel Ab of Sweden and Al Byte Information Technology of Kenya.

However, it is also argued that an applicant's capacity to deliver services should be considered paramount and licensing allocation should, therefore, be made on the basis of consideration of such pertinent issues. The argument put forward here is also supported by Sihanya (2000) in his analysis of the licensing procedure in the broadcasting arena in Kenya.

Furthermore, the licensing process when used as a governance mechanism is only applicable to the extent to which it is enforceable. In agreeing with this, Wu *et al* (2004: 227) note that "the expenditure and staff time and energy to create and implement a policy that cannot be enforced seems misguided, especially given the number of problems inevitably facing the regulator of a competitive market".

Several problems can therefore be cited from the KCA and the case studies presented.

Lengthy process

The licensing process tends to be very lengthy. The official announcement of the third GSM licence took place in January 2003 (*Nation*, 12 January 2003) and was issued by the then Transport Minister, John Michuki. The length of the process is seen to originate from the licensing schedule, which provides an outlined procedure of close to one year for the completion of the process. However, even with an outlined procedure and start dates, both the incumbent mobile operators, Safaricom and Celtel, did not begin operations on their scheduled dates. The third GSM is no different, with expectations that Econet will begin operations in May or June 2005 as issued in a press statement by the company CEO, Masiyiwa (*East African Standard*, 8 October 2004).

This thus delays the entire sector's progress and has wider implications for development prospects in other sectors of the country. In addition, from a market perspective, competition is negated, as the public's envisaged savings through purchase of cheaper calls (based on price changes in all three companies) is lost. Assuming this to be the case, it also follows that the Government's expected revenue is reduced because licence fee and percentage revenue income from the mobile operator would have been factored into the country's operational expenditure and planning. The assumption presented here is not far-fetched; political rhetoric during the election process (December 2002) centred on the sale of Telkom Kenya, as well as the introduction of the third mobile subscriber.¹¹

Potential for controversy, subjectivity, litigation and general disruptions

The licensing process is open to controversy, subjectivity, litigation and other forms of disruption. For example, in the case of Econet, complaints in the press came both from local advocacy groups and from current players in the market who felt that Econet would not meet the sector's demands (*Nation*, 20 February 2004). This is significant, as issues of USO were paramount conditions for the licence. Econet's Chief Executive responded quickly to the furore of complaints regarding the firm's ability to provide service, by arguing that Econet expected to secure a third of the market within five years. Econet based this expectation on an assumption of support from Kenyans whom, the firm hoped, would be more inclined to support a largely Kenyan-owned company (*Balancing Act*, 2004).

¹¹ See local newspapers, *East African Standard* (www.eastandard.net) and *Nation* (www.nationaudio.com) during the period August 2002-January 2003.

Such controversy could be attributed to the lack of clarity in the technical process with regard to how an applicant wins. While the matrix score is a start, it would seem that there need to be better methods on the assessment criteria. Given that subjectivity on the part of the assessor is unavoidable, those assessing are left with no alternative but to make judgements based on the information made available on the application documents.

This is not a unique case and this kind of problem is common in other government offices too, where applications for tenders and projects are based more on the ability to convince the tender team than on any actual proof of the ability to meet the stated criteria. In other words, what takes place in the tender assessment process leaves room for preferences; which in turn leaves room for controversy. The lack of clarity regarding the application process and the lack of transparency in the process on the part of the CCK leave room for litigation.

In licence cancellation or renewal there should be substantial procedural equity. A licence cancellation or approval should therefore not take place until the opinions of all parties have been heard and the case made satisfactorily in the opinion of all players. For example, in the case of *KTIG versus CCK*, legal experts argued that the technical and financial evaluations should have been considered as a whole and should have constituted the substance of the suit; it was therefore argued that anyone apart from the judge hearing the case could only explore at the risk of committing the offence of *sub judice* (*East African Standard*, 12 October 2003). Nevertheless, the CCK went ahead and on 19 August 2004 issued Econet Wireless with a licence to operate. The court case, which has been prolonged, was heard again on 6 November 2004. In arguing its case, KTIG has since revealed damning evidence that the process was tailor-made for Econet Wireless to win the bid. KTIG also claims that the CCK went against public procurement procedures by allowing Econet to take part in the drafting of the tendering procedure (*East African Standard*, 6 November 2004).

The lack of a complaints unit within the office of the CCK further exacerbates such problems. Public awareness can largely be attributed to the various advocacy groups in the country and would indicate the need for an independent unit, where complaints on issues in the sector might be raised. Such a unit would receive verbal or written complaints pertaining to any regulatory issues that consumers wished to address. A team would then investigate the issue and take appropriate steps, depending on the nature and frequency of the complaint. The need for such a service is seen as paramount given that regulatory principles are governed by fairness and justice not *only* to the service provider (as is mostly the case) but also to the consumer. For this reason, the CCK's decision making process should be transparent, timely, fair and predictable. For example, Australia currently has an Ombudsman specifically for the purposes of monitoring the sector.

In addition, to allowing stakeholder participation, the CCK should provide more open fora for issues to be discussed and deliberated. This would enforce procedural equity. One way to do this would be to encourage stakeholder participation. In policy making this is known as the Green and White paper process. This method was used in South Africa during the e-government policy making process. Stakeholders would therefore be drawn from the regulated industry, the government, consumers and the general public. The participation envisaged would constitute active involvement in the process and not just casual consultations about decisions made. In the United States, however, participation has in some instances been achieved through congressional and agency hearings during which interest groups and issue networks make presentations. In a number of situations, Congress implements the views of the interest group. This approach is also espoused by Sabatier (1991) and Weiss (1977), who see policy stakeholders as influencing the policy idea and its subsequent process in the policy domain.

The issue of subjectivity raises further questions about the nature and degree of institutional independence. Studies in the area of regulatory independence have found regulatory independence and the competitive nature of the market to be directly related. Thus, if “liberalization and competition are introduced in an environment of inherited monopoly and weak regulation, competitive market forces are likely to play an extremely modest role” (Melody, 1997: 95).

In the case of Kenya, the lack of institutional independence in the licensing process attests to the political nature of the CCK and its undemocratic past. During the implementation of the reform process, the CCK workforce was carved out of the former KP&TC organisation. Thus, in effect, KP&TC created the CCK, Telkom Kenya and Postal Services. The implications of this are significant, if policy is analysed from an implementation point of view. If we accept that implementation is a process that involves a “network” or multiplicity of organisations, the question arises as to how organisations interact with one another. Two views of interaction have informed this debate: in the power and resource dependency view, it is argued that the degree of interaction between organisations and individuals is a product of power relationships, in which one organisation/individual can induce the less powerful to follow its lead. Another view goes that the degree of organisational interchange is only of mutual benefit when the degree of shared objectives or shared preference are the same (Aldrich, 1972). This can be seen to be true of both the CCK and Telkom Kenya, where collegiality is strong, which negatively impacts on the degree to which the CCK can regulate Telkom Kenya.

Furthermore, institutional analysis in public policy studies confirms that formal rules, compliance procedures and standard operating procedures structure the interactions of individuals by affecting the degree of power one set of actors has over policy outcomes, and the way those actors define their own interests (Neville, 2002; Hall, 1986). Complaints from local advocacy groups crying foul over the preferential treatment of Telkom Kenya are not far-fetched; again, such complaints can be explained in terms of the historical nature of authority in the organisations involved; the heads of the CCK, Telkom Kenya, the NCS and the Ministry responsible, are all presidential appointees and are thus viewed as having – indeed are even expected to have – affiliations to the Government in power. Political rhetoric on the sector is therefore common from both the opposition and Government, each accusing the other of influencing the licensing process. This translates to a lack of trust on the part of members of the public, who see the CCK as yielding to political forces and politicians as making policy choices based on self-interest.

Speculators with questionable motives

The licensing process often attracts speculators whose intention is not to roll out networks but to eventually sell the licence for quick financial gains not related to service provision. As has been shown above, the lack of due diligence means that applicants can easily get away with providing untrue technical jargon; thus, a submitted proposal may not accurately reflect the applicant’s experience. Cases of bidders having submitted successful applications only to sell their share to other firms and thus gain from the application process have also been rampant. An example of this is the case of the commercial trunked radio operators. In an aim to improve the efficiency and frequency utilisation of the numerous private 2-way radio operators, the CCK in 2001 embarked on yet another licensing process aimed at introducing the migration of the numerous individual 2-way radio networks to shared commercial trunked radio networks, on VHF and UHF bands in order to facilitate efficiency. Unfortunately, none of the winning bidders came forward to pay the over US\$ 5 million that had been bid as initial licence fees. The regulator blames this behaviour on speculative bidding on the part of the applicants (Respondent #14). Such problems seriously call into question the ability of the licensing team involved in assessing the tender documents. To ensure accountability, it may be

wiser to consider turning the applications over to a corporate governance body for assessment. It may also be worthwhile considering getting corporate governance bodies, in the countries in which the applicants themselves operate, to participate in the application process.

The type of problem described above would also tend to call into question the regulator's ability to enforce rules. While there is substantial literature on how rules should be established to regulate firms in a competitive communications market, there is comparatively little literature on how to *enforce* such rules (see Baldwin & Cave, 1999). This issue of inability to enforce rules is, however, not unique to Kenya; it is cited by the Federal Communications Commission as one of the many queries they receive from regulators (Wu *et al*, 2004). The role of monitoring in policy implementation studies would suggest the need for a formative evaluation process, in which monitoring is used to inform policy makers and stakeholders (Henry, 1991). On the question of monitoring, the CCK, respondents provided three main reasons for the lack of good enforcement:

- the lack of actual statistics;
- lack of technical know-how in drafting documents; and
- lack of equipment and other infrastructural set-ups that are needed to ensure that due diligence is maintained (Respondent #10).

The above gaps in the monitoring process might be reduced by various tools such as database systems and information packages, which are suggested as effective in ensuring that monitoring can take place. Studies in the area of knowledge management in Kenya (Kerretts, 1998) attribute the lack of data to the absence of trust, a lack of awareness regarding the potential value of gathering statistics and a lack of proper documentation procedures. Implementation studies in policy analysis further underscore the fact that the development of performance evaluation must be understood in the context of the need to control public finances and attain higher levels of value for money, efficiency and effectiveness (Parsons, 1995).

Nonetheless, even if rules are enforced, questions on the extent to which the regulator is able to retract on legally binding documents are raised. What does the regulator do in a case where it is unable to re-issue a licence based on the no-show of a winning applicant? What options do regulators have in such cases? These issues need to be addressed in the Kenyan sector, where such cases are rampant. As it stands, the number of licences in the market determines the number of new licences that can be issued. While this in itself is a problem, the issue is further compounded by the fact that *this* number includes those applicants not in operation – therefore reducing any possibility of enhanced competition in the sector. The suggestion of having a court for the communications sector dealing with such issues has yet to be implemented in many countries and continues to be a thorn in the flesh of many regulators. This paper suggests that such forms of “closed market based licensing” are in need of review. It is suggested that an open market system be used in which competition is not limited to the number of applicants. A progressive result using this system is evident in the area of Internet access, where the non-limitation of applicants for the licence of Internet Service Providers (ISPs) has brought down the unit price of access to the Internet.

High financial bids with resulting high service tariffs

The licensing process often leads to very high financial bids, which – if paid – give rise to very high service tariffs that are deemed necessary to recoup the heavy investments including payment of licence fees. This is evidenced by the case of the incumbent mobile operators – Safaricom and Celtel – who defend their service charges on the basis of trying to recoup the licensing fees paid to the Government.

In addition, the issue of high fees has been linked to the Government's need to raise revenue. Policy studies note that economic and social forces shape policy outcomes by generating changes in the economic or social environment. This in turn necessitates a policy response and may directly also influence the interests/actions of actors in the policy community (Neville, 2002). Those interviewed from both the private and government sectors, as well as those involved in writing the tender documents, confirmed that the criteria for the tendering process of the third GSM was largely influenced by demands of the new Government, which needed to meet obligations that pertained to the new free education policy. Given the potential high sums of money that can be earned from this sector, the Government's expectations on the sale of a licence have been high. However, bidding at different times often results in different financial offers, which leads, in turn, to uneven and inconsistent market entry terms for different players. It is thought that the non-penalisation of Econet is due to the quoted amount on the second winning bid (US\$ 11 million), which was seen as low and would therefore compromise envisaged government revenue.

Legitimising rent-seeking behaviours

It is argued that the Kenyan licensing process could be seen as *legitimising* rent-seeking behaviours. While this has not been fully determined, complaints made by the public would indicate that the issue warrants further investigation. If financial applications based on an auction process are the sole determinants of success, this would seem to negate the licensing procedure, as decisions are made based on Government's expected financial gain rather than on the applicants' ability to provide services. In Australia, licensing of an applicant is done through an application based on the Terms of Reference, with 60% assigned to technical considerations and 40% to financial considerations. While an applicant has to pass the technical stage to be considered for the financial stage, the entire process is seen as one entity, rather than as two separate entities as is the case in the Kenyan licensing process.

Moreover, it is argued that the licensing process is not appropriate for fully liberalised markets as it leads to requests for concessions, which are in conflict with liberalisation policies. An example of this would be the recent request for a freeze in further licensing till the investor had recouped its investments. There are also cases where the existing operators often require/request that subsequent new entrants enter the market on similar terms. This requirement cannot be fulfilled since it is difficult to align entry terms through a bidding process. Indeed, market conditions will have changed and even then it is difficult to quantify the value of the market erosion in order to factor the same in developing a reserve price.

Drawing on a public choice analytical framework, which is based on a utilitarian philosophy, such policy making behaviour as is described above could be explained as follows: individuals (and therefore implicitly organisations) involved in policy making are guided by self, rather than by public interest (Dunleavy, 1991). Thus, government agencies seek relentlessly to maximise their budgets, while politicians are very eager to offer more programmes to win popular support. The result is an expanded government with a bureaucracy, pursuing self-interest at the expense of public interest. The public choice framework suggests that the aim of policy making would be to reduce government involvement and to develop institutions that enable market forces to operate smoothly.

Licensing as contrary to the trend towards convergence

The licensing issue raises questions about the nature of the actual degree of ICT convergence in the sector. As can be seen from the case of the KCA, licensing is split between the various sectors; thus, for example, it is necessary to purchase a separate licence (and go through the same

process) for both the broadcasting and GSM networks. Such issues may need to be re-examined, as there is a growing international trend towards either abolishing the requirements for licensing or considering the possibility of convergence (Ypsilanti & Xavier, 1998). This has been necessitated by technology development, consumer demands, issues of long term sustainability of telecom providers, and the need for optimum utilisation of resources. For example, in Australia there is an open licensing system regime for telecommunications with no distinction made on the basis of the technology used.¹² This is also fast becoming the case in Organisation for Economic Co-operation and Development countries, where convergence directives have been issued suggesting that a single regulatory framework be formed in place of the separate agencies that once regulated broadcasting and information technology. In the Kenyan context, the issue is not first and foremost that of convergence but of whether the regulatory system itself hinders convergence. And from the case study analysis, it can be seen that the legal system in which regulation is implemented is itself in need of re-evaluation. Of major concern therefore is that the regulatory barriers constrict the materialisation of the potential economic and social benefits of competition and ICT.

Policy studies attribute ideas about appropriate policy instruments to epistemic communities of individuals "with a claim to policy relevant knowledge based on common professional beliefs and standards of judgement about common policy concerns" (Rose, 1991: 15-16). It is suggested that this is one reason for the fact that the KCA is based on a telecommunications framework and not a holistic ICT framework. In his book *Technocracy and the politics of expertise*, Frank Fischer (1990) argues that technocratic domains such as that of the information society tend to be dominated by "experts", who rule the game. This holds true in the case of the Kenyan regulator, where the majority of those in the licensing team, as well as the senior people in the organisation, are seen to comprise engineering and legal experts. It is thus not surprising to find that both the Chief Executives (previous and current) of the CCK were lawyers by profession. The ideological justification for this is seen to come from the Government and public opinion, in terms of which legal and engineering experts are assumed to make good regulators due to the technical and legal nature of telecommunications. While not contesting their specialised knowledge, it is noted that the nature of telecommunications has now come to encompass information, communication and technology – and permeates all sectors of the economy. Thus, future policy making processes would do well to establish well rounded teams, from all domains of ICT as well as from other sectors of the economy.

It follows that the effective transformation of ICT will be achieved to the degree to which ICT itself is applied in all sectors of the economy. It is unfortunate, therefore, that from the outset there has been a separation of *information, communication and technology* licensing issues. While, in Kenya, this is currently being addressed through a separate information technology policy directive, it is suggested that this move be revisited – with the aim of providing rather an *holistic* policy that would seek to meet the demands and needs of the ICT sector.

The plethora of literature on the usefulness of ICT attests to the need for and importance of knowledge workers and a knowledge infrastructure (Mansell and Wehn, 1998; Melody, 1999). Both these issues seem to have been completely ignored in the quest to meet the demands of the telecommunications reform process in Kenya and other African nations. While questions remain regarding whether a single regulatory body should meet these demands, experience in many

¹² For an overview of the Australian telecommunications reform see Albon, Hardin and Dec (1997).

African countries shows that there would be problems were this not to be the case. This is because existing government agencies have already shown their lack of mutual co-ordination, resulting in various duplicated policy documents, which in turn has affected performance of the economy.

Finally, in advocating for a re-examination of the licensing process and having made various suggestions for each issue, it should be noted that the drive to want to “catch up” with the rest of the world in this everchanging ICT market is heightened. Nevertheless, such catching up should not be done blindly. The use of case studies from other countries, as well as suggested ideologies and frameworks presented in the international arena, ignore the fact that Africa’s telecommunications landscape first and foremost lacks access to basic telecommunications services. The implications of this are that Africa needs policy whose drive is to meet targets of USO.¹³ The drive for reform should be based on this and not on attempting to follow market oriented models whose sole aim is *profitability*. Indeed, it has been shown that privatisation is not the sole determinant of competitive and efficient markets but rather that sound management systems from both the Government and the regulator (Melody, 1999) are required if competition and efficiency are to be achieved. Policy choices that advocate better and wider use of the new technologies should therefore be considered.

Issues of USO and the implementation of a knowledge infrastructure are further heightened by the trends in the mobile telecommunications industry, where figures of use currently exceed fixed-line telephony (Marcelle, 2002). A study by Hamilton (2003) questions the role of the mobile telephone industry in Africa. Hamilton’s excellent analysis, using quantitative and qualitative data, finds that the mobile telephone acts as a complement to – rather than a substitute for – fixed-line telephony. Associated with such findings, therefore, is the fact that new ways of thinking and new forms of technology need to be considered in order not only to provide USO, but also to provide access to the Internet and to the various Value Added Services that result from this connection. It would be wise to revisit definitions of USO, because currently such definitions do not include mobile telephony.

The implication, for governments and regulators, of this paper’s findings is that policy choices need to be made from an enlightened and knowledgeable perspective. Governments in developing nations need to be wary of rushing to solidify deals with international community agencies and private sector organisations. In addition, the global-political nature of the sector has greatly changed, giving rise to the non-differentiation of private, international and non-governmental organisations (NGOs). Where this is the case, many NGOs are now involved in providing ICT assistance pegged to international deals with private sector agencies. Although, in the short term, this might seem reasonable, the long term effects are debatable (given the nature of new and changing policies such as open standards/software),¹⁴ because in most cases governments are then tied to the policy option for a given number of years.

Conclusion

Drawing on the above Kenyan case studies, it is evident that policy making is an incremental process, which requires several deliberative processes before a conclusion is reached (if, indeed, a final conclusion can ever be reached). It is therefore necessary to evaluate a policy domain beyond the simplistic nature of what is observed as “end results”. The endeavour of this study has been

¹³ For a detailed analysis on USO see International Development and Research Centre (IDRC) reports, www.idrc.org.

¹⁴ The open software/standards debate is currently ongoing. The European Union leads the debate by recently concluding definitions of open software/standards. See <http://europa.eu.int/ida/> and <http://flosspols.org/conf/>.

to provide a deeper analysis of the implementation issues in the telecommunication/ICT sector in Kenya through a public policy framework. In doing so, the study has shown that implementation problems are linked to policy choices made by policy actors in the sector. The wider implications of this study for Africa and other developing nations lie in the fact that ICT policy options and decision making processes influence the degree to which a nation can call itself an information/knowledge society. In this regard, policy analysts need to move African ICT research away from the current predominance of "ICT outcome/output" research to robust, in-depth qualitative work, which begins to unpack the complexities of ICT policy making as set out in this article. Such studies may serve to enlighten policy makers on the impact and influence of their ICT policy choices on communities as they endeavour to participate in the knowledge/information revolution.

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